Amendments to the Claims

1-21. (Canceled)

22. (Currently amended) A signal processing apparatus comprising:

decoding means for decoding audio data in input data into a PCM digital audio signal of a prescribed number of multiple channels separated into a first channel group and a second channel group, the audio data conforming with a prescribed encoding scheme, the input data being formed with prescribed audio packs containing the audio data, the audio data having information about assignment of the multiple channels and having information about a sampling frequency for the first channel group and information about a sampling frequency for the second channel group, the audio data resulting from encoding inclusive of loss-less compression in conformity with the ~~DVD audio~~ DVD-Audio standards; and

packeting processing means for making packets in a format of a prescribed protocol, each of the packets having a packet header and a data field;

wherein the packeting processing means comprises:

1) means for placing the information about the assignment of the multiple channels, the information about the sampling frequency for the first channel group, and the information about the sampling frequency for the second channel group in a prescribed area in a real-data recording area except a CIP (Common Isochronous Packet) header in the data field, and also placing at least one of a down sampling flag, a down mix flag, and a dequantization flag in the prescribed area; and

2) means for placing channel information for identifying the respective channels for the PCM digital audio signal in the prescribed area at a position adjacently preceding the PCM digital audio signal as an identifier for the PCM digital audio signal, and placing the channels for the PCM digital audio signal at positions adjacent to each other in the prescribed area.

23. (Previously presented) A signal processing apparatus as recited in claim 22, wherein the down sampling flag represents that a prescribed sampling frequency is halved.

24. (Currently amended) A signal processing method comprising the steps of:

decoding audio data in input data into a PCM digital audio signal of a prescribed number of multiple channels separated into a first channel group and a second channel group, the audio data conforming with a prescribed encoding scheme, the input data being formed with prescribed audio packs containing the audio data, the audio data having information about assignment of the multiple channels and having information about a sampling frequency for the first channel group and information about a sampling frequency for the second channel group, the audio data resulting from encoding inclusive of loss-less compression in conformity with the ~~DVD audio~~ DVD-Audio standards; and

making packets in a format of a prescribed protocol, each of the packets having a packet header and a data field;

wherein the packet making step comprises:

1) placing the information about the assignment of the multiple channels, the information about the sampling frequency for the first channel group, and the information about the sampling frequency for the second channel group in a prescribed area in a real-data recording area except a CIP (Common Isochronous Packet) header in the data field, and also placing at least one of a down sampling flag, a down mix flag, and a dequantization flag in the prescribed area; and

2) placing channel information for identifying the respective channels for the PCM digital audio signal in the prescribed area at a position adjacently preceding the PCM digital audio signal as an identifier for the PCM digital audio signal, and placing the channels for the PCM digital audio signal at positions adjacent to each other in the prescribed area.

25. (Previously presented) A signal processing method as recited in claim 24, wherein the down sampling flag represents that a prescribed sampling frequency is halved.

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26.   (Currently amended) A signal receiving method comprising the steps of:

decoding audio data in input data into a PCM digital audio signal of a prescribed number of multiple channels separated into a first channel group and a second channel group, the audio data conforming with a prescribed encoding scheme, the input data being formed with prescribed audio packs containing the audio data, the audio data having information about assignment of the multiple channels, information about a sampling frequency for the first channel group, and information about a sampling frequency for the second channel group, the audio data resulting from encoding inclusive of loss-less compression in conformity with the ~~DVD audio~~ DVD-Audio standards;

making packets in a format of a prescribed protocol, each of the packets having a packet header and a data field;

wherein the packet making step comprises:

1) placing the information about the assignment of the multiple channels, the information about the sampling frequency for the first channel group, and the information about the sampling frequency for the second channel group in a prescribed area in a real-data recording area except a CIP (Common Isochronous Packet) header in the data field, and also placing at least one of a down sampling flag, a down mix flag, and a dequantization flag in the prescribed area; and

2) placing channel information for identifying the respective channels for the PCM digital audio signal in the prescribed area at a position adjacently preceding the PCM digital audio signal as an identifier for the PCM digital audio signal, and placing the channels for the PCM digital audio signal at positions adjacent to each other in the prescribed area;

~~3)~~ receiving the packets made by the packet making step; and

~~4)~~ decoding the channel information for identifying the respective channels for the PCM digital audio signal which is in the packets received by the receiving step.

27.   (Previously presented) A signal receiving method as recited in claim 26, wherein the down sampling flag represents that a prescribed sampling frequency is halved.